

FIG. 9 is a block diagram of a TDI detector system. The system includes a TDI DETECTOR 44a, an AMP 232, an A/D CONV. 234, a CPU 238, a TDI LINE BUFFER 236, a SPECTRAL BUFFER 240, and an IMAGE LINE BUFFER 242. The TDI DETECTOR 44a is connected to the AMP 232, which is connected to the A/D CONV. 234. The A/D CONV. 234 is connected to the TDI LINE BUFFER 236. The TDI LINE BUFFER 236 is connected to the CPU 238. The CPU 238 is connected to the SPECTRAL BUFFER 240 and the IMAGE LINE BUFFER 242. The CPU 238 is also connected to a DIGITAL DECONVOLUTION block, which is connected to the SPECTRAL BUFFER 240. The CPU 238 is also connected to a DIGITAL DECONVOLUTION block, which is connected to the SPECTRAL BUFFER 240.

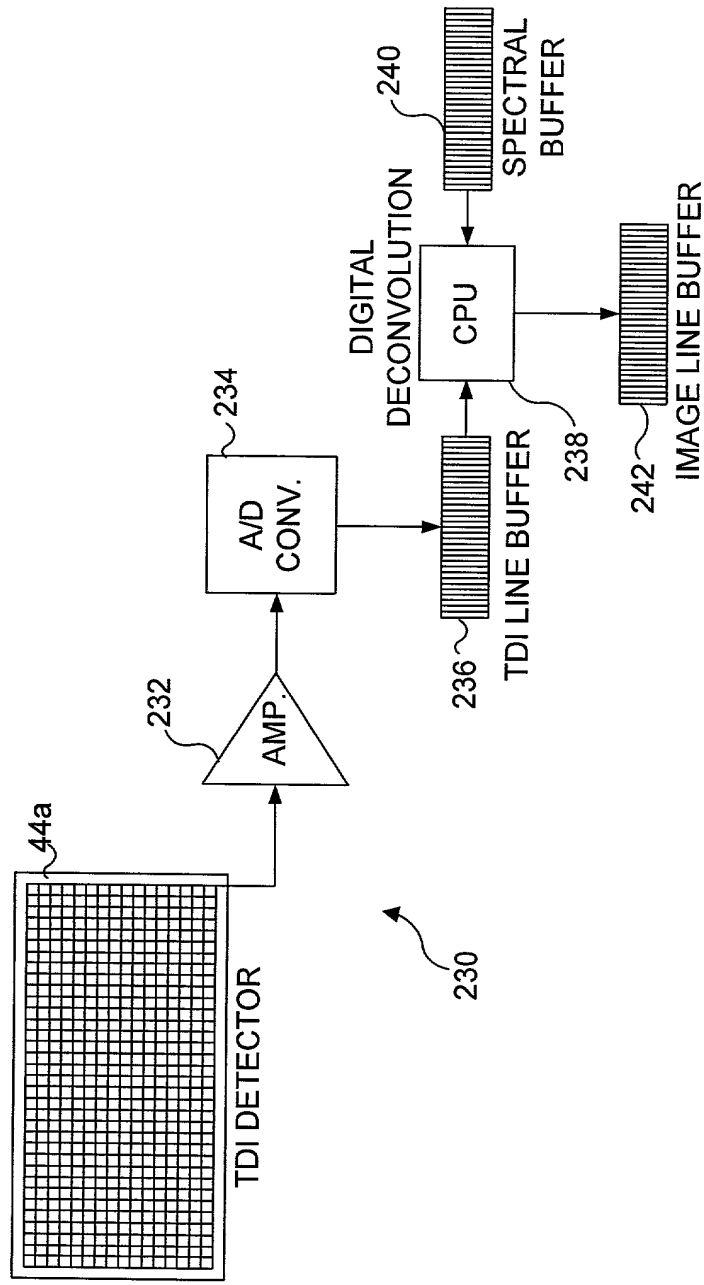


FIG. 9

FIG. 10 is a schematic diagram of a method for identifying a cell type based on a composite image of a cell. The method includes: (a) obtaining a composite image of a cell; (b) performing spectral decomposition on the composite image to obtain a green light scatter image, a yellow nuclear fluorescence image, an orange x-chromosome fish signal image, and a red y-chromosome fish signal image; (c) identifying a cell type based on the green light scatter image, the yellow nuclear fluorescence image, the orange x-chromosome fish signal image, and the red y-chromosome fish signal image.

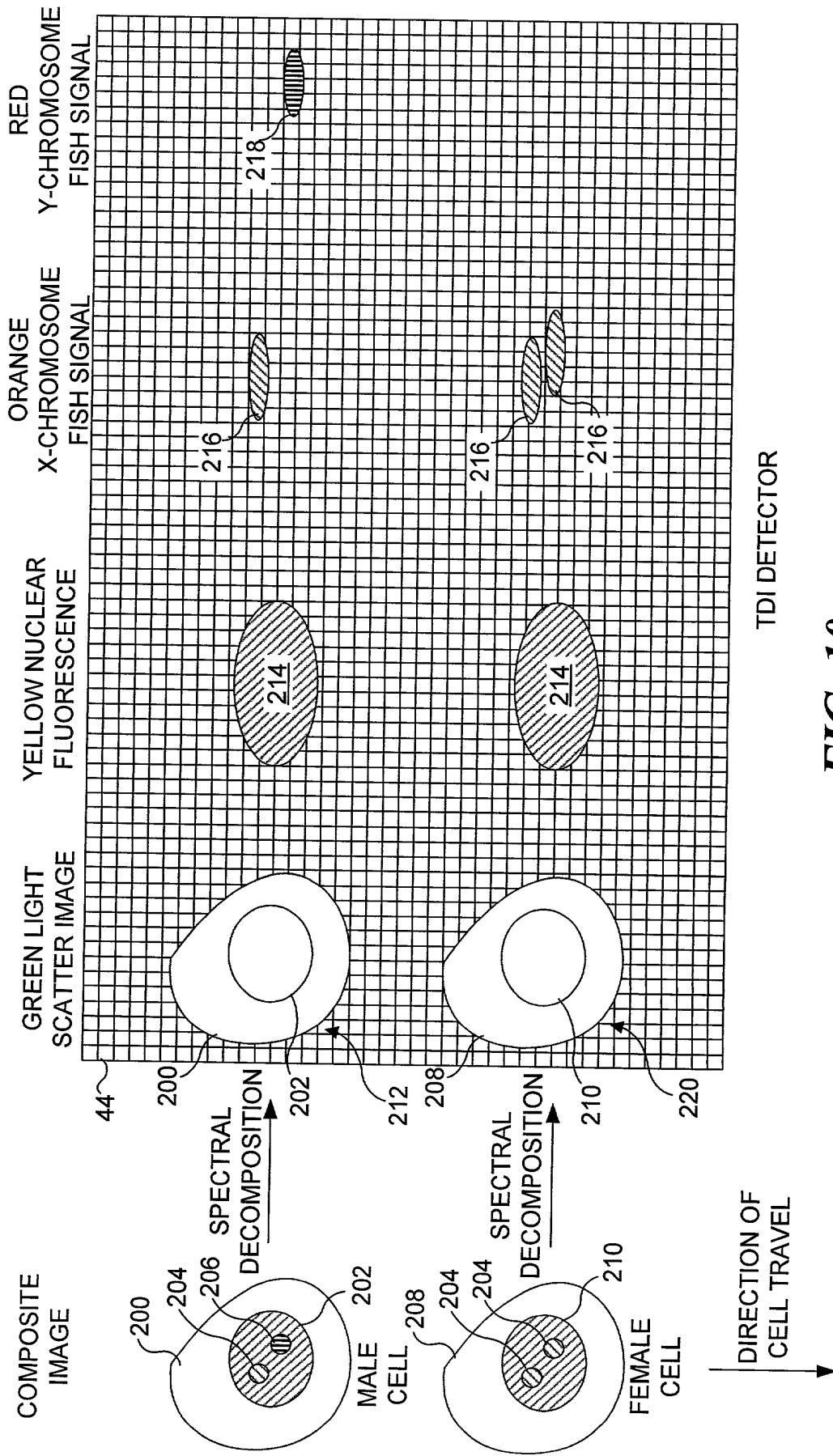


FIG. 10

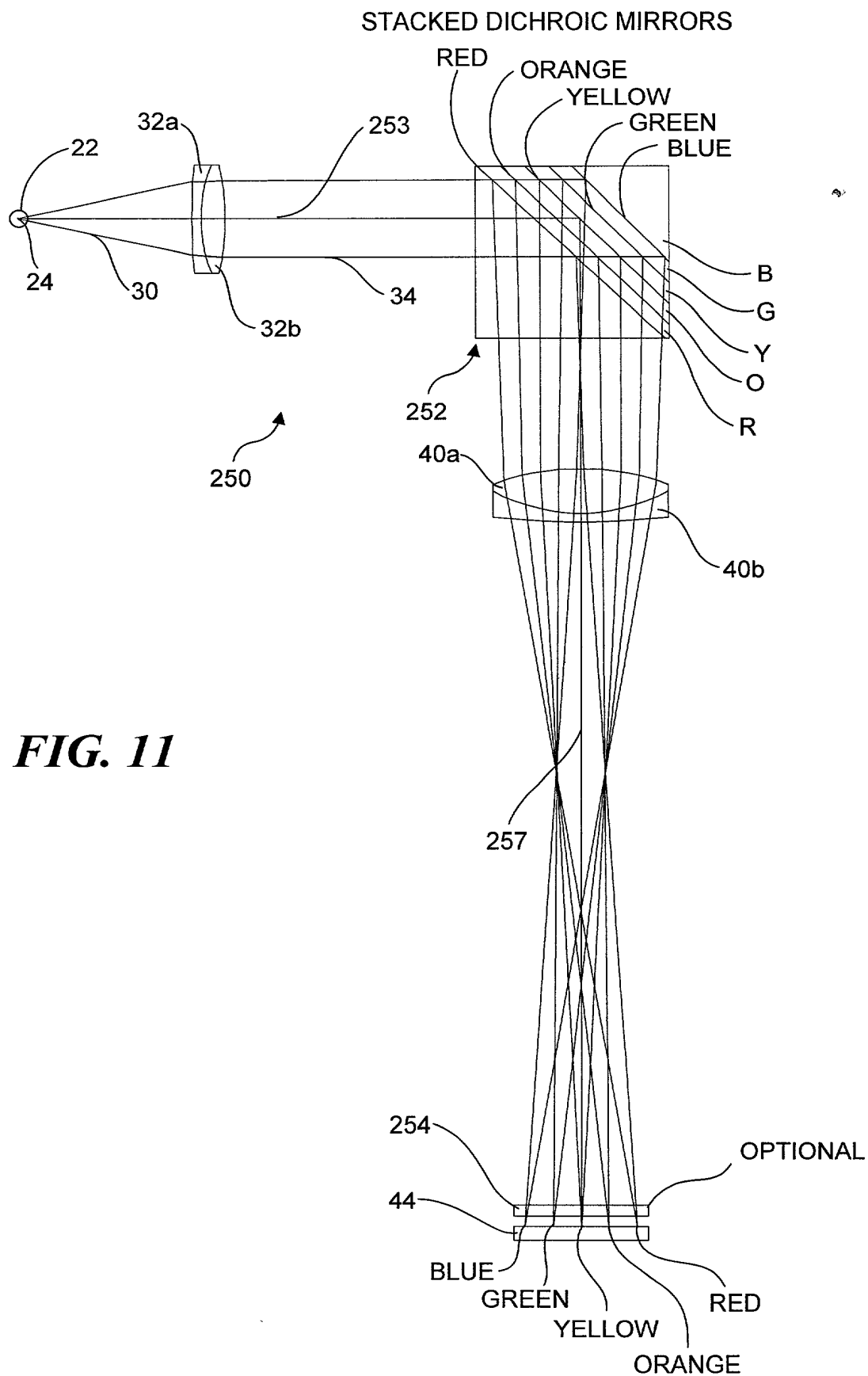


FIG. 11